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Patent
Attorney's Docket No. 021238-644

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	**MAIL STOP: PGPUB**
Mohammad Hajaligol et al.	Group Art Unit: 1731
Application No.: 10/782,812	Examiner: Not Yet Assigned
Filed: February 23, 2004	Confirmation No.: 5468
For: USE OF OXYHYDROXIDE COMPOUNDS FOR REDUCING CARBON MONOXIDE IN THE MAINSTREAM SMOKE OF A CIGARETTE	

REQUEST FOR CORRECTED PATENT APPLICATION PUBLICATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Correction of the following material error(s) in Patent Application Publication No. US-2004-0159328-A1, corresponding to the above-identified patent application, is respectfully requested as follows:

AMENDMENTS TO THE CLAIMS:

The following is a listing of material errors in the published claims and the appropriate corrections:

29. The method of claim 23, wherein the cigarette produced comprises from about 5 mg to about 200 mg of the oxyhydroxide compound per cigarette.

REMARKS

In view of the above-identified material error, Applicants respectfully request a corrected publication of this application. The request is being timely submitted within two (2) months of the publication date of August 19, 2004.

Enclosed are copies of the portion of the published application which contain a material error and copies of the corresponding portion of the application as filed. Since the material error was the result of the Patent Office's publication process, no fee is required.

Respectfully submitted,

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Date: September 1, 2004

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Hajaligol et al. (43) Pub. Date: Aug. 19, 2004

(54) USE OF OXYHYDROXIDE COMPOUNDS FOR REDUCING CARBON MONOXIDE IN THE MAINSTREAM SMOKE OF A CIGARETTE

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(57) **ABSTRACT**

Cut filler compositions, cigarettes, methods for making cigarettes and methods for smoking cigarettes are provided, which involve the use of an oxyhydroxide compound that is capable of decomposing to form at least one product capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide. The oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide can be in the form of nanoparticles. Cut filler compositions are described which comprise tobacco and at least one such oxyhydroxide compound. Cigarettes are provided, which comprise a tobacco rod, containing a cut filler having at least one such oxyhydroxide compound. Methods for making a cigarette are provided, which involve (i) adding at least one such oxyhydroxide compound to a cut filler; (ii) providing the cut filler comprising the oxyhydroxide compound to a cigarette making machine to form a tobacco rod; and (iii) placing a paper wrapper around the tobacco rod to form the cigarette. Methods of smoking the cigarette, as described above, are also provided, which involve lighting the cigarette to form smoke and inhaling the smoke, wherein during the smoking of the cigarette, the oxyhydroxide compound decomposes during smoking to form a compound that acts as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide.

the decomposition of the oxyhydroxide, during combustion of the cut filler composition has an average particle size less than about 50 nm.

10. The cut filler composition of claim 9, wherein the oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide during combustion of the cut filler composition has an average particle size less than about 5 nm.

11. A cigarette comprising a tobacco rod, wherein the tobacco rod comprises a cut filler composition comprising tobacco and an oxyhydroxide compound, wherein during smoking of the cigarette, said oxyhydroxide compound is capable of decomposing to form at least one product capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide.

12. The cigarette of claim 11, wherein said oxyhydroxide compound is capable of decomposing during smoking of the cigarette to form at least one product capable of acting as both an oxidant for the conversion of carbon monoxide to carbon dioxide and as a catalyst for the conversion of carbon monoxide to carbon dioxide.

13. The cigarette of claim 11, wherein the oxyhydroxide compound is selected from the group consisting of FeOOH, AlOOH, TiOOH, and mixtures thereof.

14. The cigarette of claim 11, wherein the oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide during combustion of the cut filler composition is in the form of nanoparticles.

15. The cigarette of claim 11, wherein the oxyhydroxide compound is capable of decomposing during smoking of the cigarette to form at least one product selected from the group consisting of Fe_2O_3, Al_2O_3, TiO_2, and mixtures thereof.

16. The cigarette of claim 11, wherein the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette is present in an amount effective to convert at least 50% of the carbon monoxide to carbon dioxide.

17. The cigarette of claim 11, wherein the oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette has an average particle size less than about 500 nm.

18. The cigarette of claim 17, wherein the oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette has an average particle size less than about 100 nm.

19. The cigarette of claim 18, wherein the oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette has an average particle size less than about 50 nm.

20. The cigarette of claim 19, wherein the oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette has an average particle size less than about 5 nm.

21. The cigarette of claim 11, wherein the cigarette comprises from about 5 mg to about 200 mg of the oxyhydroxide compound per cigarette.

22. The cigarette of claim 21, wherein the cigarette comprises from about 40 mg to about 100 mg of the oxyhydroxide compound per cigarette.

23. A method of making a cigarette, comprising

(i) adding an oxyhydroxide compound to a cut filler, wherein the oxyhydroxide compound is capable of decomposing during the smoking of the cigarette to form at least one product capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide;

(ii) providing the cut filler comprising the oxyhydroxide compound to a cigarette making machine to form a tobacco rod; and

(iii) placing a paper wrapper around the tobacco rod to form the cigarette.

24. The method of claim 23, wherein said oxyhydroxide compound is capable of decomposing during smoking of the cigarette to form at least one product capable of acting as both an oxidant for the conversion of carbon monoxide to carbon dioxide and as a catalyst for the conversion of carbon monoxide to carbon dioxide.

25. The method of claim 23, wherein the oxyhydroxide compound and/or the product formed from the decomposition of the oxyhydroxide during combustion of the cut filler composition is in the form of nanoparticles.

26. The method of claim 25, wherein the oxyhydroxide compound used in step (i) and/or the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette has an average particle size less than about 100 nm.

27. The method of claim 26, wherein the oxyhydroxide compound used in step (i) and/or the product formed from the decomposition of the oxyhydroxide during smoking, of the cigarette has an average particle size less than about 50 nm.

28. The method of claim 27, wherein the oxyhydroxide compound used in step (i) and/or the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette has an average particle size less than about 5 nm.

29. The method of claim 23, wherein the cigarette produced comprises from about mg to about 200 mg of the oxyhydroxide compound per cigarette.

30. The method of claim 29, wherein the cigarette produced comprises from about 40 mg to about 100 mg of the oxyhydroxide compound per cigarette.

31. The method of claim 23, wherein the oxyhydroxide compound used in step (i) is selected from the group consisting of FeOOH, AlOOH, TiOOH, and mixtures thereof.

32. The method of claim 31, wherein the oxyhydroxide compound used in step (i) is FeOOH.

33. The method of claim 23, wherein the oxyhydroxide compound used in step (i) is capable of decomposing to form at least one product selected from the group consisting of Fe_2O_3, Al_2O_3, TiO_2, and mixtures thereof.

34. The method of claim 33, wherein the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette is present in an amount effective to convert at least 50% of the carbon monoxide to carbon dioxide.

35. A method of smoking the cigarette of claim 11, comprising lighting the cigarette to form smoke and inhaling the smoke, wherein during the smoking of the cigarette, the oxyhydroxide compound is capable of decomposing to form at least one product capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide.

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APPLICATION FOR

UNITED STATES LETTERS PATENT

For

USE OF OXYHYDROXIDE COMPOUNDS FOR REDUCING CARBON MONOXIDE IN THE MAINSTREAM SMOKE OF A CIGARETTE

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28. The method of claim 27, wherein the oxyhydroxide compound used in step (i) and/or the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette has an average particle size less than about 5 nm.

29. The method of claim 23, wherein the cigarette produced comprises from about 5 mg to about 200 mg of the oxyhydroxide compound per cigarette.

30. The method of claim 29, wherein the cigarette produced comprises from about 40 mg to about 100 mg of the oxyhydroxide compound per cigarette.

31. The method of claim 23, wherein the oxyhydroxide compound used in step (i) is selected from the group consisting of FeOOH, AlOOH, TiOOH, and mixtures thereof.

32. The method of claim 31, wherein the oxyhydroxide compound used in step (i) is FeOOH.

33. The method of claim 23, wherein the oxyhydroxide compound used in step (i) is capable of decomposing to form at least one product selected from the group consisting of Fe_2O_3, Al_2O_3, TiO_2, and mixtures thereof.

34. The method of claim 33, wherein the product formed from the decomposition of the oxyhydroxide during smoking of the cigarette is present in an amount effective to convert at least 50% of the carbon monoxide to carbon dioxide.

35. A method of smoking the cigarette of claim 11, comprising lighting the cigarette to form smoke and inhaling the smoke, wherein during the smoking of the cigarette, the oxyhydroxide compound is capable of decomposing to form at least one product capable of acting as an oxidant for the conversion of carbon monoxide to carbon dioxide and/or as a catalyst for the conversion of carbon monoxide to carbon dioxide.